



# STIC EIC 2100 Search Request Form

131775

Today's Date:

9/7/04

What date would you like to use to limit the search?

Priority Date:

Other:

Name

MICHAEL B. HOCNIES

AU

2121

Examiner #

78360

Room #

2C06

Phone

308-6280

Serial #

107045, 221

Format for Search Results (Circle One):

PAPER

DISK

EMAIL

Where have you searched so far?

USP

DWPI

EPO

JPO

ACM

IBM TDB

IEEE

INSPEC

SPI

Other

Is this a "Fast &amp; Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

CALL ME LET'S  
TALK

THIS IS VERY COMPLICATED  
BUT THEN AGAIN... WHAT'S NEW

STIC Searcher

Geoffrey St. Leger

Phone

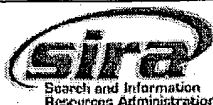
308-7800

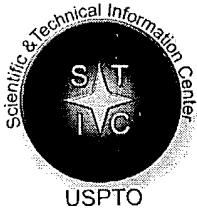
Date picked up

9/7/4

Date Completed

9/9/4





# STIC Search Report

## EIC 2100

STIC Database Tracking Number: 131775

**TO: Michael B Holmes**  
**Location: 2C06**  
**Art Unit : 2121**  
**Thursday, September 09, 2004**

**Case Serial Number: 10/045221**

**From: Geoffrey St. Leger**  
**Location: EIC 2100**  
**PK2-4B30**  
**Phone: 308-7800**

**geoffrey.stleger@uspto.gov**

### Search Notes

Dear Examiner Holmes,

Attached please find the results of your search request for application 10/045221. I searched Dialog's foreign patent files, technical databases, product announcement files and general files; along with the Internet, ACM and IBM's TDBs.

Please let me know if you have any questions.

Regards,

Geoffrey St. Leger  
4B30/308-7800



# STIC Search Results Feedback Form

**EIC 2100**

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Anne Hendrickson, EIC 2100 Team Leader  
308-7831, CPK2-4B40

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 2133

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

**Comments:**

Drop off or send completed forms to STIC/EIC2100 CPK2-4B40





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## Search Results

### Nothing Found

Your search for **[("h-infinity" or "h infinity" or h-infinity or h infinity or h <near/1> infinity) and (signal\* <near/3> (separat\* or divid\* or division\* or split\* or breakup or breaking up or broken up) or blind <near/2> separat\* or deconvol\*)]** did not return any results.

You may revise it and try your search again below or click advanced search for more options.

("h-infinity" or "h infinity" or h-infinity or h infinity or h <near/1> infinity) and (signal\* <near/3> (separat\* or divid\* or division\* or split\* or breakup or breaking up or broken up) or blind <near/2> separat\* or deconvol\*)

SEARCH

[\[Advanced Search\]](#) [\[Search Help/Tips\]](#)



Complete Search Help and Tips

### The following characters have specialized meaning:

Special Characters	Description
, ( ) [	These characters end a text token.
= > < !	These characters end a text token because they signify the start of a field operator. (! is special: != ends a token.)
` @ \Q < { [ !	These characters signify the start of a delimited token. These are terminated by the end character associated with the start character.

## Refine Search

---

### Search Results -

Terms	Documents
"h infinity"	0

**Database:**

US Pre-Grant Publication Full-Text Database  
US Patents Full-Text Database  
US OCR Full-Text Database  
EPO Abstracts Database  
JPO Abstracts Database  
Derwent World Patents Index  
IBM Technical Disclosure Bulletins

**Search:**

L4

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### Search History

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**DATE:** Thursday, September 09, 2004   [Printable Copy](#)   [Create Case](#)

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB=TDBD; PLUR=YES; OP=OR</i>			
<u>L4</u>	"h infinity"	0	<u>L4</u>
<u>L3</u>	h infinity	3974	<u>L3</u>
<u>L2</u>	h-infinity	0	<u>L2</u>
<u>L1</u>	h adj infinity	0	<u>L1</u>

END OF SEARCH HISTORY

File 8: Ei Compendex(R) 1970-2004/Aug W5  
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 File 62: SPIN(R) 1975-2004/Jul W2  
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 File 239: Mathsci 1940-2004/Oct  
 (c) 2004 American Mathematical Society

Set	Items	Description
S1	17476	H()INFINITY
S2	28056	SIGNAL? ?(3N)(SEPARAT? OR DIVID??? OR DIVISION? ? OR SPLIT- ???? OR BREAK???())UP)
S3	5931	BLIND(2W)SEPARAT?
S4	44616	DECONVOL?
S5	4	S1 AND S2
S6	3	S1 AND S3
S7	5	S5:S6
S8	4	RD (unique items)
S9	98	S1 AND S4
S10	70	RD (unique items)
S11	2078	AU=(SHIMIZU, J? OR SHIMIZU J?)
S12	7	S1 AND S11
S13	5	RD (unique items)

8/5/1 (Item 1 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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06584643 E.I. No: EIP03447697822

**Title: Adaptive blind source separation using a risk-sensitive criterion**

Author: Shimizu, Junya  
Corporate Source: IBM Research Tokyo Research Laboratory, Yamato-shi, 242-8502, Japan  
Source: IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences v E86-A n 7 July 2003. p 1724-1731  
Publication Year: 2003  
CODEN: IFSEEX ISSN: 0916-8508  
Language: English  
Document Type: JA; (Journal Article) Treatment: A; (Applications); T; (Theoretical); X; (Experimental)  
Journal Announcement: 0311W1

Abstract: An adaptive **blind signal separation** filter is proposed using a risk-sensitive criterion framework. This criterion adopts an exponential type function. Hence, the proposed criterion varies the consideration weight of an adaptation quantity depending on errors in the estimates: the adaptation is accelerated when the estimation error is large, and unnecessary acceleration of the adaptation does not occur close to convergence. In addition, since the algorithm derivation process relates to an **H \*\* infinity** filtering, the derived algorithm has robustness to perturbations or estimation errors. Hence, this method converges faster than conventional least squares methods. Such effectiveness of the new algorithm is demonstrated by simulation. 11 Refs.

Descriptors: **Blind source separation**; Adaptive algorithms; Perturbation techniques; Least squares approximations; Independent component analysis; Learning algorithms; Principal component analysis; Problem solving; Computer simulation

Identifiers: Risk-sensitive criterion; Estimation error

Classification Codes:

716.1 (Information & Communication Theory); 723.5 (Computer Applications); 921.6 (Numerical Methods)

716 (Electronic Equipment, Radar, Radio & Television); 723 (Computer Software, Data Handling & Applications); 921 (Applied Mathematics)

71 (ELECTRONICS & COMMUNICATION ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

8/5/2 (Item 2 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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05988848 E.I. No: EIP02036827757

**Title: Blind adaptive H \*\* infinity multiuser detection for CDMA systems with impulsive noise**

Author: Chiang, C.-T.; Chang, A.-C.; Chen, Y.-H.  
Corporate Source: Department of Electrical Engineering I-Shou University, Kaohsiung Country 840, Taiwan  
Source: IEICE Transactions on Communications v E84-B n 11 November 2001. p 3060-3063

Publication Year: 2001  
CODEN: ITRCEC ISSN: 0916-8516  
Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)  
Journal Announcement: 0201W3

Abstract: A generalized sidelobe canceler (GSC) with and without subweight partition scheme was employed to develop blind adaptive **H \*\* infinity** multiuser detection. **H \*\* infinity** filtering was observed to be less sensitive to uncertainty in the exogenous signals statistics and dynamical model as the design criterion was based on the worst case disturbance. Adaptive **H \*\* infinity** algorithm with subweight approach showed the advantages of fast convergence speed, insensitivity of dynamic estimate error and suitability for arbitrary ambient noise over the

conventional  $H^{\infty}$  and RLS-based adaptive algorithms. (Edited abstract) 4 Refs.

Descriptors: Code division multiple access; Impulse noise; **Blind source separation**; Bit error rate; Communication channels (information theory); Equalizers; Signal filtering and prediction; Error analysis; Vectors; Matrix algebra; Correlation methods; Computational complexity; Adaptive algorithms

Identifiers: Multiuser detection

Classification Codes:

716.1 (Information & Communication Theory); 723.1 (Computer Programming); 713.5 (Other Electronic Circuits); 921.6 (Numerical Methods); 921.1 (Algebra); 922.2 (Mathematical Statistics); 721.1 (Computer Theory (Includes Formal Logic, Automata Theory, Switching Theory & Programming Theory)); 723.5 (Computer Applications)

716 (Electronic Equipment, Radar, Radio & Television); 723 (Computer Software, Data Handling & Applications); 713 (Electronic Circuits); 921 (Applied Mathematics); 922 (Statistical Methods); 721 (Computer Circuits & Logic Elements)

71 (ELECTRONICS & COMMUNICATION ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

8/5/3 (Item 3 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05959312 E.I. No: EIP01516770283

Title: **Mixed  $H^{\infty}/2$   $H^{\infty}$  filter design in multirate transmultiplexer systems: LMI approach**

Author: Chen, B.-S.; Tsai, C.-L.; Chen, Y.-F.

Corporate Source: Department of Electrical Engineering National Tsing Hua University, Hsinchu, Taiwan

Source: IEEE Transactions on Signal Processing v 49 n 11 November 2001. p 2693-2701

Publication Year: 2001

CODEN: ITPRED ISSN: 1053-587X

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 0112W4

Abstract: In this study, a mixed  $H^{\infty}/2$   $H^{\infty}$  filter design is proposed for multirate transmultiplexer systems with dispersive channel and additive noise. First, a multirate state-space representation is introduced for the transmultiplexer with the consideration of channel dispersion. Then, the problem of signal reconstruction can be regarded as a state estimation problem. In order to design an efficient separating filterbank for transmultiplexer system with uncertain input signal and additive noise, the  $H^{\infty}/2$  filter is employed for robust signal reconstruction. The  $H^{\infty}/2$  filter design is considered to be a suboptimal approach to achieve the optimal signal reconstruction in transmultiplexer system under unitary noise power. Finally, a mixed  $H^{\infty}/2$   $H^{\infty}$  filter is proposed to achieve a better signal reconstruction performance in transmultiplexer systems. These design problems can be transformed to solving the eigenvalue problems (EVP) under some linear matrix inequality (LMI) constraint. The LMI Matlab toolbox can be applied to efficiently solve the EVP by convex optimization technique. 21 Refs.

Descriptors: Digital filters; Signal reconstruction; Multiplexing; Spurious signal noise; Code division multiple access; Eigenvalues and eigenfunctions; Matrix algebra; Optimization

Identifiers: Transmultiplexer systems

Classification Codes:

703.2 (Electric Filters); 716.1 (Information & Communication Theory); 921.1 (Algebra); 921.5 (Optimization Techniques)

703 (Electric Circuits); 716 (Electronic Equipment, Radar, Radio & Television); 921 (Applied Mathematics)

70 (ELECTRICAL ENGINEERING, GENERAL); 71 (ELECTRONICS & COMMUNICATION ENGINEERING); 92 (ENGINEERING MATHEMATICS)



8/5/4 (Item 1 from file: 34)

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
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04408931 Genuine Article#: TB225 Number of References: 18

**Title: A MODIFIED CRITERION FOR OUTPUT-FEEDBACK TRACKING PROBLEMS WITH  
DETERMINISTIC AND STOCHASTIC SIGNALS**

Author(s): HWANG MS; LEE FC

Corporate Source: NATL CHIAO TUNG UNIV, INST ELECTR/HSINCHU 30039//TAIWAN/  
NATL CHIAO TUNG UNIV, INST CONTROL ENGN/HSINCHU//TAIWAN/

Journal: CONTROL-THEORY AND ADVANCED TECHNOLOGY, 1995, V10, N4 (SEP), P  
1445-1457

ISSN: 0911-0704

Language: ENGLISH Document Type: NOTE

Geographic Location: TAIWAN

Subfile: SciSearch; CC ENGI--Current Contents, Engineering, Technology &  
Applied Sciences

Journal Subject Category: INSTRUMENTS & INSTRUMENTATION; ENGINEERING,  
ELECTRICAL & ELECTRONIC; ROBOTICS & AUTOMATIC CONTROL

**Abstract:** A modified criterion for designing a linear time-invariant controller for an output feedback tracking problem is studied. This criterion takes the responses due to stochastic and deterministic signals into account. The advantage of this criterion is in its design potentiality to take care of both performances due to stochastic and deterministic signals in a time-invariant controller. Theoretical properties of this criterion include existence, uniqueness and closed-loop stability of the optimal solution. Moreover, this solution satisfies a separation property and incorporates a required internal model for the tracking requirement.

**Descriptors--Author Keywords:** OPTIMAL CONTROLLER ; OPTIMIZATION CRITERION ;  
STOCHASTIC **SIGNAL** ; DETERMINISTIC **SIGNAL** ; **SEPARATION** PRINCIPLE

**Identifiers--KeyWords Plus:** WIENER-HOPF DESIGN; MULTIVARIABLE CONTROL;  
SYSTEMS

**Research Fronts:** 93-1247 001 (UNCERTAIN SYSTEMS; **H - INFINITY** OPTIMAL  
CONTROLLER-DESIGN; ROBUST OUTPUT-FEEDBACK STABILIZATION)

**Cited References:**

FRANCIS BA, 1977, V15, P486, SIAM J CONTROL OPTIM  
GRIMBLE MJ, 1979, V10, P1369, INT J SYST SCI  
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HALPERN ME, 1988, V48, P1107, INT J CONTROL  
HWANG MS, 1994, V10, P195, CONTR-THEOR ADV TECH  
IFTAR A, 1990, V51, P1327, INT J CONTROL  
JOSEPH PD, 1961, V80, P193, AIEE T APPL IND  
KUCERA V, 1979, V15, P411, AUTOMATICA  
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SHAKED U, 1976, V24, P741, INT J CONTROL  
YOULA DC, 1976, V21, P3, IEEE T AUTOMATIC CON  
YOULA DC, 1976, V21, P319, IEEE TRANS AUTOMAT C

10/3/1 (Item 1 from file: 8)  
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06910015 E.I. No: EIP04268230277

**Title: Recent trends in 2D blind deconvolution for nondestructive evaluation**

Author: Chen, Chi-Hau; Qidwai, Uvais  
Corporate Source: ECE Department University of Massachusetts, Dartmouth, MA, United States

Source: Tamkang Journal of Science and Engineering v 5 n 1 March 2002. p 49-58

Publication Year: 2002

ISSN: 1560-6686

Language: English

10/3/2 (Item 2 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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06113291 E.I. No: EIP02347056802

**Title: Two-dimensional H // infinity -based blind deconvolution for image enhancement with applications to ultrasonic NDE**

Author: Qidwai, Uvais; Chen, C.H.

Corporate Source: Elec. Eng. and Comp. Sci. Department Tulane University, New Orleans, LA 70118-5674, United States

Source: IEEE Signal Processing Letters v 9 n 5 May 2002. p 157-159

Publication Year: 2002

CODEN: ISPLEM ISSN: 1070-9908

Language: English

10/3/3 (Item 3 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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05921666 E.I. No: EIP01385484625

**Title: H // infinity deconvolution filter and its application to ultrasonic nondestructive evaluation of materials**

Author: Hanshaw, Timothy C.; Anderson, Michael J.; Hsu, Chin S.

Corporate Source: Washington State Univ, Pullman, WA, United States

Source: ISA Transactions v 38 n 4 1999. p 323-335

Publication Year: 1999

CODEN: ISATAZ ISSN: 0019-0578

Language: English

10/3/4 (Item 4 from file: 8)  
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05920592 E.I. No: EIP01385576016

**Title: Inverse filtering and deconvolution**

Author: Saberi, Ali; Stoorvogel, Anton A.; Sannuti, Peddapullaiah

Corporate Source: Washington State Univ, Pullman, WA, United States

Source: International Journal of Robust and Nonlinear Control v 11 n 2 2001. p 131-156

Publication Year: 2001

CODEN: IJRCEA ISSN: 1049-8923

Language: English

10/3/5 (Item 5 from file: 8)  
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05914108 E.I. No: EIP01436694882

**Title: A reduced order H // infinity deconvolution filter design using bounded real lemma**

Author: Rho, H.; Hsu, C.S.

Corporate Source: Sch. of Elec. Eng. and Comp. Sci. Washington State University, Pullman, WA 99164-2752, United States

Conference Title: 2001 American Control Conference

Conference Location: Arlington, VA, United States Conference Date: 20010625-20010627

E.I. Conference No.: 58513

Source: Proceedings of the American Control Conference v 6 2001. p 4234-4240 (IEEE cat n 01CH37148)

Publication Year: 2001

CODEN: PRACEO ISSN: 0743-1619

Language: English

**10/3/6 (Item 6 from file: 8)**

DIALOG(R)File 8: Ei Compendex(R)

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05913040 E.I. No: EIP01426692665

**Title: Mixed H//2/ H // infinity deconvolution of uncertain periodic FIR channels**

Author: Wang, S.; Xie, L.; Zhang, C.

Corporate Source: Dept. of Elec./Electron. Engineering University of Melbourne, Parkville, Vic. 3010, Australia

Source: Signal Processing v 81 n 10 October 2001. p 2089-2103

Publication Year: 2001

CODEN: SPRODR ISSN: 0165-1684

Language: English

**10/3/7 (Item 7 from file: 8)**

DIALOG(R)File 8: Ei Compendex(R)

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05766173 E.I. No: EIP01015483130

**Title: Game theory approach to H // infinity deconvolution filter design**

Author: Rho, Hian; Hsu, Chin S.

Corporate Source: Washington State Univ, Pullman, WA, USA

Conference Title: Proceedings of the 1999 American Control Conference (99ACC)

Conference Location: San Diego, CA, USA Conference Date: 20990602-20990604

E.I. Conference No.: 55827

Source: Proceedings of the American Control Conference v 4 1999. IEEE, Piscataway, NJ, USA, 99CB36251. p 2891-2895

Publication Year: 1999

CODEN: PRACEO ISSN: 0743-1619

Language: English

**10/3/8 (Item 8 from file: 8)**

DIALOG(R)File 8: Ei Compendex(R)

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05760576 E.I. No: EIP01015478855

**Title: Genetic algorithm approach to fixed-order mixed H//2/H//I//N//F optimal deconvolution filter designs**

Author: Hung, Jui-Chung; Chen, Bor-Sen

Corporate Source: Natl Tsing Hua Univ, Hsinchu, Taiwan

Source: IEEE Transactions on Signal Processing v 48 n 12 Dec 2000. p 3451-3461

Publication Year: 2000

CODEN: ITPRED ISSN: 1053-587X

Language: English

10/3/9 (Item 9 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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05741443 E.I. No: EIP00125454850

**Title: Robust H // infinity deconvolution and its application to fault detection**

Author: Yaesh, I.; Shaked, U.  
Corporate Source: Israel Military Industries, Ltd, Ramat-Hasharon, Isr  
Source: Journal of Guidance, Control, and Dynamics v 23 n 6 Nov 2000. p 1001-1012  
Publication Year: 2000  
CODEN: JGCODS ISSN: 0731-5090  
Language: English

10/3/10 (Item 10 from file: 8)  
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05694537 E.I. No: EIP00115385761

**Title: H // infinity smoothing**  
Author: Blanco, E.; Neveux, Ph.; Thomas, G.  
Corporate Source: Universite Claude Bernard Lyon I, Villeurbanne, Fr  
Conference Title: 2000 IEEE Interntional Conference on Acoustics, Speech, and Signal Processing  
Conference Location: Istanbul, Turkey Conference Date: 20000605-20000609  
E.I. Conference No.: 57489  
Source: ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings v 2 2000. IEEE, Piscataway, NJ, USA, 00CB37100. p 713-716  
Publication Year: 2000  
CODEN: IPRODJ ISSN: 0736-7791  
Language: English

10/3/11 (Item 11 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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05685878 E.I. No: EIP00105371997

**Title: Envelope-constrained H // infinity filter design: An LMI optimization approach**

Author: Tan, Zhiqiang; Soh, Yeng Chai; Xie, Lihua  
Corporate Source: Nanyang Technological Univ, Singapore, Singapore  
Source: IEEE Transactions on Signal Processing v 48 n 10 Oct 2000. p 2960-2963  
Publication Year: 2000  
CODEN: ITPRED ISSN: 1053-587X  
Language: English

10/3/12 (Item 12 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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05683754 E.I. No: EIP00105376301

**Title: H // infinity deconvolution of periodic channels**  
Author: Xie, Lihua; Wang, Song; Du, Chunling; Zhang, Cishen  
Corporate Source: Nanyang Technological Univ, Singapore, Singapore  
Source: Signal Processing v 80 n 11 Nov 2000. p 2365-2378  
Publication Year: 2000  
CODEN: SPRODR ISSN: 0165-1684  
Language: English

10/3/13 (Item 13 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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05534523 E.I. No: EIP00045139350

**Title:** H // infinity deconvolution filtering, prediction, and smoothing: a krein space polynominal approach

**Author:** Zhang, Huanshui; Xie, Lihua; Soh, Yeng Chai

**Corporate Source:** Nanyang Technological Univ, Singapore

**Source:** IEEE Transactions on Signal Processing v 48 n 3 2000. p 888-892

**Publication Year:** 2000

**CODEN:** ITPRED **ISSN:** 1053-587X

**Language:** English

10/3/14 (Item 14 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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05512108 E.I. No: EIP00035102184

**Title:** Fixed-order H//2 and H // infinity optimal deconvolution filter designs

**Author:** Chen, Bor-Sen; Hung, Jui-Chung

**Corporate Source:** Natl Tsing-Hua Univ, Hsin-Chu, Taiwan

**Source:** Signal Processing v 80 n 2 Feb 2000. p 311-331

**Publication Year:** 2000

**CODEN:** SPRODR **ISSN:** 0165-1684

**Language:** English

10/3/15 (Item 15 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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05099493 E.I. No: EIP98084345280

**Title:** Myopic deconvolution combining Kalman filter and tracking control

**Author:** Sarri, P.; Thomas, G.; Sekko, E.; Neveux, P.

**Corporate Source:** I.N.S.A. de Lyon, Villeurbanne, Fr

**Conference Title:** Proceedings of the 1998 IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP. Part 3 (of 6)

**Conference Location:** Seattle, WA, USA **Conference Date:** 19980512-19980515

**E.I. Conference No.:** 48801

**Source:** ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings v 3 1998. IEEE, Piscataway, NJ, USA, 98CH36181. p 1833-1836

**Publication Year:** 1998

**CODEN:** IPRODJ **ISSN:** 0736-7791

**Language:** English

10/3/16 (Item 16 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

05097196 E.I. No: EIP98084350128

**Title:** Prediction, filtering, smoothing and deconvolution in a discrete H \*\* infinity setting: a game theory approach

**Author:** Kim, Hansil; Jalali, Ali A.; Sims, Craig S.; Kim, Young Chul

**Corporate Source:** Univ of Ulsan, Ulsan, S Korea

**Source:** International Journal of Control v 70 n 6 Aug 1998. p 841-857

**Publication Year:** 1998

**CODEN:** IJCOAZ **ISSN:** 0020-7179

**Language:** English

10/3/17 (Item 17 from file: 8)

DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

04839796 E.I. No: EIP97103855766

**Title:** H // infinity **inferential filtering, prediction and smoothing problems**

**Author:** Grimble, M.J.

**Corporate Source:** Univ of Strathclyde, Glasgow, UK

**Source:** Signal Processing v 60 n 3 Aug 1997. p 289-304

**Publication Year:** 1997

**CODEN:** SPRODR **ISSN:** 0165-1684

**Language:** English

**10/3/18 (Item 18 from file: 8)**

DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

04646614 E.I. No: EIP97033566985

**Title:** H // infinity **deconvolution filter design and its application in image restoration**

**Author:** Yu, Xianggang; Hsu, Chin S.; Bamberger, Roberto H.

**Corporate Source:** Washington State Univ, Pullman, WA, USA

**Conference Title:** Proceedings of the 35th IEEE Conference on Decision and Control

**Conference Location:** Kobe, Jpn **Conference Date:** 19961211-19961213

**E.I. Conference No.:** 46157

**Source:** Proceedings of the IEEE Conference on Decision and Control v 4 1996., 96CH35989. p 4802-4807

**Publication Year:** 1996

**CODEN:** PCDCDZ

**Language:** English

**10/3/19 (Item 19 from file: 8)**

DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

04376750 E.I. No: EIP96043121915

**Title:** H // infinity **optimal multichannel linear deconvolution filters, predictors and smoothers**

**Author:** Grimble, M.J.

**Corporate Source:** Univ of Strathclyde, Glasgow, UK

**Source:** International Journal of Control v 63 n 3 Feb 1996. p 519-533

**Publication Year:** 1996

**CODEN:** IJCOAZ **ISSN:** 0020-7179

**Language:** English

**10/3/20 (Item 20 from file: 8)**

DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

04019776 E.I. No: EIP94122486397

**Title:** **Reduced order** H // infinity **filtering**

**Author:** Bettayeb, Maamar; Kavranoglu, Davut

**Corporate Source:** King Fahd Univ of Petroleum and Minerals, Dhahran, Saudi Arabia

**Conference Title:** Proceedings of the 1994 American Control Conference. Part 2 (of 3)

**Conference Location:** Baltimore, MD, USA **Conference Date:** 19940629-19940701

**E.I. Conference No.:** 21446

**Source:** Proceedings of the American Control Conference v 2 1994. American Automatic Control Council, Green Valley, AZ, USA, 94CH3390-2. p 1884-1888

**Publication Year:** 1994

**CODEN:** PRACEO **ISSN:** 0743-1619

**Language:** English

10/3/21 (Item 21 from file: 8)

DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

03757240 E.I. No: EIP93121137461

**Title: Filtering, smoothing and deconvolution in a discrete H \*\*  
infinity setting: a game theory approach**

Author: Jalali, Ali A.; Kim, Hasnsil; Sims, Craig S.

Corporate Source: West Virginia Univ, Morgantown, WV, USA

Conference Title: Proceedings of the 1993 American Control Conference  
Part 2 (of 3)

Conference Location: San Francisco, CA, USA Conference Date:  
19930602-19930604

E.I. Conference No.: 18910

Source: American Control Conference 1993. Publ by IEEE, IEEE Service  
Center, Piscataway, NJ, USA, (IEEE cat n 93CH3225-0). p 1057-1061

Publication Year: 1993

ISBN: 0-7803-0861-1

Language: English

10/3/22 (Item 22 from file: 8)

DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

03585615 E.I. Monthly No: EI9304053026

**Title: A frequency domain approach to the problems of H // infinity  
-minimum error state estimation and deconvolution .**

Author: Shaked, Uri; Theodor, Yahali

Source: IEEE Transactions on Signal Processing v 40 n 12 Dec 1992 p  
3001-3011

Publication Year: 1992

CODEN: ITPRED ISSN: 1053-587X

Language: English

10/3/23 (Item 1 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online  
(c) 2004 ProQuest Info&Learning. All rts. reserv.

01847750 ORDER NO: AADAA-I3023605

**Reduced order H - infinity deconvolution filter design and applications**

Author: Rho, Hian

Degree: Ph.D.

Year: 2001

Corporate Source/Institution: Washington State University (0251)

Source: VOLUME 62/08-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3742. 86 PAGES

ISBN: 0-493-35311-9

10/3/24 (Item 2 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online  
(c) 2004 ProQuest Info&Learning. All rts. reserv.

01521034 ORDER NO: AAD96-40205

**REDUCED-ORDER H - INFINITY COMPENSATOR AND FILTER DESIGN FOR LINEAR  
MULTIVARIABLE SYSTEMS (CONTROLLER)**

Author: YU, XIANGGANG

Degree: PH.D.

Year: 1995

Corporate Source/Institution: WASHINGTON STATE UNIVERSITY (0251)

Source: VOLUME 57/07-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 4621. 122 PAGES

10/3/25 (Item 1 from file: 65)  
DIALOG(R)File 65:Inside Conferences  
(c) 2004 BLDSC all rts. reserv. All rts. reserv.

02089608 INSIDE CONFERENCE ITEM ID: CN021894946  
**Constrained Deconvolution : a Game Theory Approach in an H . infinity . Setting**

Sekko, E.; Thomas, G.  
CONFERENCE: European signal processing conference-8th  
SIGNAL PROCESSING -EUROPEAN CONFERENCE-, 1996; VOL 1 P: 703-705  
Edizioni LINT Trieste, 1996  
ISBN: 8886179839  
LANGUAGE: English DOCUMENT TYPE: Conference Papers  
CONFERENCE EDITOR(S): Ramponi, G.  
CONFERENCE SPONSOR: European Association for Signal Processing  
CONFERENCE LOCATION: Trieste, Italy  
CONFERENCE DATE: Sep 1996 (199609) (199609)

NOTE:

Described as proceedings. Also known as EUSIPCO-96

10/3/26 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

7928560 INSPEC Abstract Number: A2004-10-0130C-024, B2004-05-0100-050,  
C2004-05-0000-029

**Title: 2002 7th International Conference on Control, Automation, Robotics and Vision (IEEE Cat. No.02EX649)**

Part vol.1  
Publisher: Nanyang Technological Univ, Singapore  
Publication Date: 2002 Country of Publication: Singapore 3 vol.1718  
pp.  
ISBN: 981 04 8364 3 Material Identity Number: XX-2002-03489  
Conference Title: ICARV 2002: The Seventh International Conference on  
Control, Automation, Robotics and Vision  
Conference Date: 2-5 Dec. 2002 Conference Location: Singapore  
Language: English  
Subfile: A B C E  
Copyright 2004, IEE

10/3/27 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2004 Institution of Electrical Engineers. All rts. reserv.

6534436 INSPEC Abstract Number: B2000-04-6140B-082, C2000-04-5260-039  
**Title: H infinity deconvolution filtering, prediction, and smoothing: a Krein space polynomial approach**

Author(s): Huanshui Zhang; Lihua Xie; Yeng Chui Soh  
Author Affiliation: Sch. of Electr. & Electron. Eng., Nanyang Technol.  
Inst., Singapore  
Journal: IEEE Transactions on Signal Processing vol.48, no.3 p.  
888-92

Publisher: IEEE,  
Publication Date: March 2000 Country of Publication: USA  
CODEN: ITPRED ISSN: 1053-587X  
SICI: 1053-587X(200003)48:3L:888:DFPS;1-K  
Material Identity Number: 0649-2000-003  
U.S. Copyright Clearance Center Code: 1053-587X/2000/\$10.00  
Language: English  
Subfile: B C  
Copyright 2000, IEE

10/3/28 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
(c) 2004 INIST/CNRS. All rts. reserv.



14453845 PASCAL No.: 00-0113277

**QUELQUES APPLICATIONS DU FILTRAGE OPTIMAL A LA DECONVOLUTION  
(SOME APPLICATIONS OF THE OPTIMAL FILTER TO THE DECONVOLUTION )**

SEKKO Edgard-Opportum; THOMAS Edgard, dir  
Universite de Lyon 1, Villeurbanne, Francee  
Univ.: Universite de Lyon 1. Villeurbanne. FRA Degree: Th. doct.  
1998-02; 1998 145 p.  
Language: French Summary Language: French; English

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**10/3/29 (Item 1 from file: 434)**

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci  
(c) 1998 Inst for Sci Info. All rts. reserv.

09746675 Genuine Article#: AT081 No. References: 53

**Title: A SCHUR TYPE MATRIX EXTENSION PROBLEM, .3.**

Author(s): FRITZSCHE B; KIRSTEIN B

Corporate Source: KARL MARX UNIV, SEKT MATH, KARL MARX PL/DDR-7010  
LEIPZIG//GER DEM REP/

Journal: MATHEMATISCHE NACHRICHTEN, 1989, V143, P227-247

Language: ENGLISH Document Type: ARTICLE

**10/3/30 (Item 2 from file: 434)**

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci  
(c) 1998 Inst for Sci Info. All rts. reserv.

09500405 Genuine Article#: U7698 No. References: 7

**Title: EXTENSION OF THE THEOREMS OF CARATHEODORY-TOEPLITZ-SCHUR AND PICK**

Author(s): TAKAHASHI S

Corporate Source: NARA WOMENS UNIV/NARA 630//JAPAN/

Journal: PACIFIC JOURNAL OF MATHEMATICS, 1989, V138, N2, P391-399

Language: ENGLISH Document Type: ARTICLE

**10/3/31 (Item 3 from file: 434)**

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci  
(c) 1998 Inst for Sci Info. All rts. reserv.

09416815 Genuine Article#: T7966 No. References: 48

**Title: MOMENT THEORY, ORTHOGONAL POLYNOMIALS, QUADRATURE, AND CONTINUED  
FRACTIONS ASSOCIATED WITH THE UNIT-CIRCLE**

Author(s): JONES WB; NJASTAD O; THRON WJ

Corporate Source: UNIV COLORADO, DEPT MATH/BOULDER//CO/80309; UNIV  
TRONDHEIM, DEPT MATH/N-7034 TRONDHEIM//NORWAY/

Journal: BULLETIN OF THE LONDON MATHEMATICAL SOCIETY, 1989, V21, MAR, P  
113-152

Language: ENGLISH Document Type: ARTICLE

**10/3/32 (Item 4 from file: 434)**

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci  
(c) 1998 Inst for Sci Info. All rts. reserv.

09390317 Genuine Article#: T8543 No. References: 28

**Title: PRINCIPAL COMPONENTS ALGORITHMS FOR ARMA SPECTRUM ESTIMATION**

Author(s): ARUN KS

Corporate Source: UNIV ILLINOIS, COORDINATED SCI LAB/URBANA//IL/61801

Journal: IEEE TRANSACTIONS ON ACOUSTICS SPEECH AND SIGNAL PROCESSING, 1989  
, V37, N4, P566-571

Language: ENGLISH Document Type: LETTER

**10/3/33 (Item 5 from file: 434)**

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci

(c) 1998 Inst for Sci Info. All rts. reserv.

09317679 Genuine Article#: T2755 No. References: 33

**Title: MODEL REDUCTIONS OF HIGH-ORDER ESTIMATED MODELS - THE ASYMPTOTIC ML APPROACH**

Author(s): WAHLBERG B

Corporate Source: LINKOPING UNIV, DEPT ELECT ENGN/S-58183 LINKOPING//SWEDEN/

Journal: INTERNATIONAL JOURNAL OF CONTROL, 1989, V49, N1, P169-192

Language: ENGLISH Document Type: ARTICLE

10/3/34 (Item 6 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci

(c) 1998 Inst for Sci Info. All rts. reserv.

09269812 Genuine Article#: R9385 No. References: 28

**Title: TOEPLITZ EQUATIONS BY CONJUGATE GRADIENTS WITH CIRCULANT PRECONDITIONER**

Author(s): CHAN RH; STRANG G

Corporate Source: UNIV HONG KONG, DEPT MATH/HONG KONG//HONG KONG//; MIT, DEPT MATH/CAMBRIDGE//MA/02139

Journal: SIAM JOURNAL ON SCIENTIFIC AND STATISTICAL COMPUTING, 1989, V10, N1, P104-119

Language: ENGLISH Document Type: ARTICLE

10/3/35 (Item 7 from file: 434)

DIALOG(R)File 434:SciSearch(R) Cited Ref Sci

(c) 1998 Inst for Sci Info. All rts. reserv.

09268640 Genuine Article#: R8973 No. References: 24

**Title: OPTIMAL DECONVOLUTION BASED ON POLYNOMIAL METHODS**

Author(s): AHLEN A; STERNAD M

Corporate Source: UNIV UPPSALA, DEPT TECHNOL, AUTOMAT CONTROL & SYST ANAL GRP/S-75121 UPPSALA//SWEDEN/

Journal: IEEE TRANSACTIONS ON ACOUSTICS SPEECH AND SIGNAL PROCESSING, 1989, V37, N2, P217-226

Language: ENGLISH Document Type: ARTICLE

10/3/36 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2004 Inst for Sci Info. All rts. reserv.

12351837 Genuine Article#: 755WM No. References: 17

**Title: On discrete-time H - infinity fixed-lag smoothing**

Author(s): Bolzern P (REPRINT) ; Colaneri P; De Nicolao G

Corporate Source: Politecn Milan, Dipartimento Eletttron & Informat, I-20133

Milan//Italy/ (REPRINT); Politecn Milan, Dipartimento Eletttron &

Informat, I-20133 Milan//Italy//; Univ Pavia, Dipartimento Informat &

Sistemist, I-27100 Pavia//Italy/

Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 2004, V52, N1 (JAN), P 132-141

ISSN: 1053-587X Publication date: 20040100

Publisher: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 445 HOES LANE, PISCATAWAY, NJ 08855 USA

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

10/3/37 (Item 2 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2004 Inst for Sci Info. All rts. reserv.

10945978 Genuine Article#: 587DY No. References: 29

**Title: H - infinity deconvolution filtering of 2-D digital systems**

Author(s): Xie LH (REPRINT) ; Du CL; Zhang CS; Soh YC

Corporate Source: Nanyang Technol Univ, Sch Elect & Elect Engrn, Singapore

2263//Singapore/ (REPRINT); Nanyang Technol Univ, Sch Elect & Elect

Engn,Singapore 2263//Singapore/; Data Storage Inst,MMS  
Grp,Singapore//Singapore/; Univ Melbourne,Dept Elect & Elect  
Engn,Parkville/Vic 3052/Australia/  
Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 2002, V50, N9 (SEP), P  
2319-2332  
ISSN: 1053-587X Publication date: 20020900  
Publisher: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 345 E 47TH ST,  
NEW YORK, NY 10017-2394 USA  
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

10/3/38 (Item 3 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

10788157 Genuine Article#: BU60P No. References: 0  
**Title: H - infinity deconvolution filtering of 2-D digital systems**  
Author(s): ANONYMOUS  
, 2002, V278, P99-114  
ISSN: 0170-8643 Publication date: 20020000  
Publisher: SPRINGER-VERLAG BERLIN, HEIDELBERGER PLATZ 3, D-14197 BERLIN,  
GERMANYH(INFINITY) CONTROL AND FILTERING OF TWO-DIMENSIONAL SYSTEMS  
Series: LECTURE NOTES IN CONTROL AND INFORMATION SCIENCES  
Language: English Document Type: ARTICLE

10/3/39 (Item 4 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

09880703 Genuine Article#: 459VU No. References: 18  
**Title: Explicit formulas for LMI-based H-2 filtering and deconvolution**  
Author(s): Cuzzola FA; Ferrante A (REPRINT)  
Corporate Source: Politecn Milan,Dipartimento Elettron & Informat,Pza L da  
Vinci 32/I-20133 Milan//Italy/ (REPRINT); Politecn Milan,Dipartimento  
Elettron & Informat,I-20133 Milan//Italy/  
Journal: AUTOMATICA, 2001, V37, N9 (SEP), P1443-1449  
ISSN: 0005-1098 Publication date: 20010900  
Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE,  
KIDLINGTON, OXFORD OX5 1GB, ENGLAND  
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

10/3/40 (Item 5 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

09830915 Genuine Article#: 453HC No. References: 23  
**Title: Discrete J-spectral factorization**  
Author(s): Zhang HS; Xie LH (REPRINT) ; Soh YC  
Corporate Source: Nanyang Technol Univ,Sch Elect & Elect Engn,BLK S2,Nayang  
Ave/Singapore 639798//Singapore/ (REPRINT); Nanyang Technol Univ,Sch  
Elect & Elect Engn,Singapore 639798//Singapore/  
Journal: SYSTEMS & CONTROL LETTERS, 2001, V43, N4 (JUL 23), P275-286  
ISSN: 0167-6911 Publication date: 20010723  
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS  
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

10/3/41 (Item 6 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

09277571 Genuine Article#: 387XE No. References: 58  
**Title: Unconstrained H - infinity predictive control with H - infinity  
prediction: single-input-single-output case**  
Author(s): Pellegrinetti G; Zhao HP; Bentsman J (REPRINT)  
Corporate Source: Univ Illinois,Dept Mech & Ind Engn,140 Mech Engn

Bldg, MC244, 1206 W Green St/Urbana//IL/61801 (REPRINT); Univ  
Illinois, Dept Mech & Ind Engr, Urbana//IL/61801  
Journal: INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL, 2000, V10,  
N15 (DEC 30), P1279-1316  
ISSN: 1049-8923 Publication date: 20001230  
Publisher: JOHN WILEY & SONS LTD, BAFFINS LANE CHICHESTER, W SUSSEX PO19  
1UD, ENGLAND  
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

**10/3/42 (Item 7 from file: 34)**

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

09197019 Genuine Article#: 378AT No. References: 31

**Title: Genetic algorithm approach to fixed-order mixed H-2/ H - infinity  
optimal deconvolution filter designs**

Author(s): Hung JC (REPRINT) ; Chen BS

Corporate Source: NATL TSING HUA UNIV, DEPT ELECT ENGN/HSINCHU//TAIWAN/  
(REPRINT)

Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 2000, V48, N12 (DEC), P  
3451-3461

ISSN: 1053-587X Publication date: 20001200

Publisher: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 345 E 47TH ST,  
NEW YORK, NY 10017-2394

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

**10/3/43 (Item 8 from file: 34)**

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

08384823 Genuine Article#: 279RM No. References: 17

**Title: Envelope-constrained H - infinity FIR filter design**

Author(s): Tan ZQ (REPRINT) ; Soh YC; Xie LH

Corporate Source: NANYANG TECHNOL UNIV, SCH ELECT & ELECT ENGN, NANYANG  
AVE/SINGAPORE 63979//SINGAPORE/ (REPRINT)

Journal: IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-ANALOG AND DIGITAL  
SIGNAL PROCESSING, 2000, V47, N1 (JAN), P79-82

ISSN: 1057-7130 Publication date: 20000100

Publisher: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 345 E 47TH ST,  
NEW YORK, NY 10017-2394

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

**10/3/44 (Item 9 from file: 34)**

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

06184988 Genuine Article#: YA483 No. References: 24

**Title: Magnitude response peak detection and control using balanced model  
reduction and leakage to a target**

Author(s): Benson KD (REPRINT) ; Sethares WA

Corporate Source: TELLABS OPERAT INC, /MISHAWAKA//IN/46545 (REPRINT); UNIV  
WISCONSIN, DEPT ELECT & COMP ENGN/MADISON//WI/53706

Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 1997, V45, N10 (OCT), P  
2442-2453

ISSN: 1053-587X Publication date: 19971000

Publisher: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 345 E 47TH ST,  
NEW YORK, NY 10017-2394

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

**10/3/45 (Item 10 from file: 34)**

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

06169026 Genuine Article#: XZ476 No. References: 36

**Title: Reduced-order H - infinity and L-2-L-infinity filtering via linear matrix inequalities**

Author(s): Grigoriadis KM (REPRINT) ; Watson JT

Corporate Source: UNIV HOUSTON, DEPT MECH ENGN/HOUSTON//TX/77204 (REPRINT)

Journal: IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, 1997, V33, N4 (OCT), P1326-1338

ISSN: 0018-9251 Publication date: 19971000

Publisher: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 345 E 47TH ST, NEW YORK, NY 10017-2394

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

10/3/46 (Item 11 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2004 Inst for Sci Info. All rts. reserv.

05980998 Genuine Article#: XL949 No. References: 14

**Title: A numerical solution to the matrix H-2/ H - infinity optimal control problem**

Author(s): Halikias GD (REPRINT) ; Jaimoukha IM; Wilson DA

Corporate Source: UNIV LEEDS, DEPT ELECT & ELECT ENGN/LEEDS LS2 9JT/W

YORKSHIRE/ENGLAND/ (REPRINT); UNIV LONDON IMPERIAL COLL SCI TECHNOL &

MED, INTERDISCIPLINARY RES CTR PROC SYST ENGN/LONDON SW7 2BY//ENGLAND/;

UNIV LONDON IMPERIAL COLL SCI TECHNOL & MED, DEPT ELECT & ELECT

ENGN/LONDON SW7 2BY//ENGLAND/

Journal: INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL, 1997, V7, N7 (JUL), P711-726

ISSN: 1049-8923 Publication date: 19970700

Publisher: JOHN WILEY & SONS LTD, BAFFINS LANE CHICHESTER, W SUSSEX, ENGLAND PO19 1UD

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

10/3/47 (Item 12 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2004 Inst for Sci Info. All rts. reserv.

05748409 Genuine Article#: WV404 No. References: 55

**Title: Stationarity conditions for the L-2 error surface of the generalized orthonormal basis functions lattice filter**

Author(s): Silva TOE (REPRINT)

Corporate Source: INESC, DEPT ELECT & TELECOMMUN, UNIV AVEIRO/P-3810

AVEIRO//PORTUGAL/ (REPRINT)

Journal: SIGNAL PROCESSING, 1997, V56, N3 (FEB), P233-253

ISSN: 0165-1684 Publication date: 19970200

Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

10/3/48 (Item 13 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2004 Inst for Sci Info. All rts. reserv.

05637211 Genuine Article#: WM482 No. References: 27

**Title: Deconvolution filter design via l(1) optimization technique**

Author(s): Peng SC (REPRINT) ; Chen BS

Corporate Source: NATL YUN LIN POLYTECH INST, DEPT ELECT ENGN/YUN

LIN//TAIWAN/ (REPRINT); NATL TSING HUA UNIV, DEPT ELECT ENGN, CONTROL & SIGNAL PROC LAB/HSINCHU 30043//TAIWAN/

Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 1997, V45, N3 (MAR), P 736-746

ISSN: 1053-587X Publication date: 19970300

Publisher: IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 345 E 47TH ST, NEW YORK, NY 10017-2394

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

10/3/49 (Item 14 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

05021333 Genuine Article#: UZ880 No. References: 22

**Title: AN EQUALIZER DESIGN FOR NONMINIMUM-PHASE CHANNEL VIA 2-BLOCK H -  
INFINITY OPTIMIZATION TECHNIQUE**

Author(s): PENG SC

Corporate Source: NATL YUN LIN POLYTECH INST, DEPT ELECT ENGN, 64 WUN HUA RD  
HUW EI/YUN LIN//TAIWAN/

Journal: SIGNAL PROCESSING, 1996, V51, N1 (MAY), P1-13

ISSN: 0165-1684

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/50 (Item 15 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

04871226 Genuine Article#: UN484 No. References: 17

**Title: ROBUST FILTER DESIGN FOR UNCERTAIN SYSTEMS DEFINED BY BOTH HARD AND  
SOFT BOUNDS**

Author(s): GRIMBLE MJ

Corporate Source: UNIV STRATHCLYDE, IND CONTROL CTR/GLASGOW/LANARK/SCOTLAND/

Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 1996, V44, N5 (MAY), P  
1063-1071

ISSN: 1053-587X

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/51 (Item 16 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

04408937 Genuine Article#: TB225 No. References: 27

**Title: MIXED H-2-NORM SENSITIVITY MINIMIZATION IN THE DFT DOMAIN FOR  
CONTROL-SYSTEM**

Author(s): YANG JS; ZERVAKIS ME

Corporate Source: UNIV MINNESOTA, DEPT ELECT & COMP ENGN/DULUTH//MN/55812

Journal: CONTROL-THEORY AND ADVANCED TECHNOLOGY, 1995, V10, N4 (SEP), P  
1515-1530

ISSN: 0911-0704

Language: ENGLISH Document Type: NOTE (Abstract Available)

10/3/52 (Item 17 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

04132084 Genuine Article#: RG558 No. References: 20

**Title: MULTICHANNEL OPTIMAL LINEAR DECONVOLUTION FILTERS AND STRIP  
THICKNESS ESTIMATION FROM GAUGE MEASUREMENTS**

Author(s): GRIMBLE MJ

Corporate Source: UNIV STRATHCLYDE, CTR IND CONTROL, GRAHAM HILLS BLDG, 50  
GEORGE ST/GLASGOW G1 1QE/LANARK/SCOTLAND/

Journal: JOURNAL OF DYNAMIC SYSTEMS MEASUREMENT AND CONTROL-TRANSACTIONS OF  
THE ASME, 1995, V117, N2 (JUN), P165-174

ISSN: 0022-0434

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/53 (Item 18 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

03993413 Genuine Article#: QX511 No. References: 36

**Title: ROLE OF ANTICAUSAL INVERSES IN MULTIRATE FILTER-BANKS .1.  
SYSTEM-THEORETIC FUNDAMENTALS**

Author(s): VAIDYANATHAN PP; CHEN TH

Corporate Source: CALTECH, DEPT ELECT ENGN/PASADENA//CA/91125  
Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 1995, V43, N5 (MAY), P  
1090-1102  
ISSN: 1053-587X  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

**10/3/54 (Item 19 from file: 34)**  
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

03535038 Genuine Article#: PK735 No. References: 12  
**Title: SINGLE-CHANNEL DIGITAL-FILTER DESIGN FOR SEISMIC APPLICATIONS**  
Author(s): LINVILLE AF  
Corporate Source: MOBIL RES & DEV CORP, MOBIL EXPLORAT & PROD TECHCTR, 3000  
PEGASUS PK DR/DALLAS//TX/75247  
Journal: GEOPHYSICS, 1994, V59, N10 (OCT), P1584-1592  
ISSN: 0016-8033  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

**10/3/55 (Item 20 from file: 34)**  
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

03400435 Genuine Article#: PB601 No. References: 22  
**Title: H2 INFERENTIAL FILTERING, PREDICTION, AND SMOOTHING WITH APPLICATION  
TO ROLLING-MILL GAUGE ESTIMATION**  
Author(s): GRIMBLE MJ  
Corporate Source: UNIV STRATHCLYDE, CTR IND CONTROL/GLASGOW G1  
1QE//SCOTLAND/  
Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 1994, V42, N8 (AUG), P  
2078-2093  
ISSN: 1053-587X  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

**10/3/56 (Item 21 from file: 34)**  
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

03389896 Genuine Article#: PB289 No. References: 10  
**Title: NMSE DECONVOLUTION VIA POLYNOMIAL METHODS AND ITS DUAL LQG  
REGULATION**  
Author(s): CHISCI L; MOSCA E  
Corporate Source: UNIV FLORENCE, DIPARTIMENTO SIST & INFORMAT, VIA SANTA  
MARTA 3/I-50139 FLORENCE//ITALY//; UNIV FLORENCE, DIPARTIMENTO SIST &  
INFORMAT, VIA SANTA MARTA 3/I-50139 FLORENCE//ITALY/  
Journal: AUTOMATICA, 1994, V30, N7 (JUL), P1197-1201  
ISSN: 0005-1098  
Language: ENGLISH Document Type: NOTE (Abstract Available)

**10/3/57 (Item 22 from file: 34)**  
DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

02734636 Genuine Article#: LZ723 No. References: 25  
**Title: APPLICATIONS OF THE SCHUR-ALGORITHM TO MIXED H-2 AND H ( INFINITY )  
NEHARI PROBLEMS**  
Author(s): FRAZHO AE; KHERAT SM  
Corporate Source: PURDUE UNIV, SCH AERONAUT & ASTRONAUT/W  
LAFAYETTE//IN/47907  
Journal: JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, 1993, V178, N2  
(SEP 15), P488-508  
ISSN: 0022-247X  
Language: ENGLISH Document Type: ARTICLE

10/3/58 (Item 23 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

02225479 Genuine Article#: KL950 No. References: 21  
**Title: FEEDFORWARD CONTROL IS DUAL TO DECONVOLUTION**  
Author(s): BERNHARDSSON B; STERNAD M  
Corporate Source: LUND INST TECHNOL, DEPT AUTOMAT CONTROL, POB 118/S-22100  
LUND//SWEDEN//; UPPSALA UNIV, DEPT TECHNOL, SYST & CONTROL GRP/S-75103  
UPPSALA//SWEDEN/  
Journal: INTERNATIONAL JOURNAL OF CONTROL, 1993, V57, N2 (FEB), P393-405  
ISSN: 0020-7179  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/59 (Item 24 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

02124576 Genuine Article#: KC930 No. References: 12  
**Title: OPTIMAL OFF-LINE SIGNAL-PROCESSING**  
Author(s): TSYPKIN YZ; AVEDYAN ED  
Corporate Source: MOSCOW CONTROL SCI INST/MOSCOW 117806//USSR/  
Journal: COMPUTERS & ELECTRICAL ENGINEERING, 1993, V19, N1 (JAN), P41-46  
ISSN: 0045-7906  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/60 (Item 25 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

01327741 Genuine Article#: GP757 No. References: 56  
**Title: AN OVERVIEW OF MODERN CONTROL STRATEGIES FOR OPTIMIZING THERMAL  
DESALINATION PLANTS**  
Author(s): ALGOBAISI DMK; BARAKZAI AS; ELNASHAR AM  
Corporate Source: WATER & ELECT DEPT/ABU DHABI//U ARAB EMIRATES/  
Journal: DESALINATION, 1991, V84, N1-3, P3-43  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/61 (Item 26 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

01294102 Genuine Article#: GL708 No. References: 47  
**Title: WIENER FILTER DESIGN USING POLYNOMIAL EQUATIONS**  
Author(s): AHLEN A; STERNAD M  
Corporate Source: UPPSALA UNIV, DEPT TECHNOL, AUTOMAT CONTROL & SYST ANAL  
GRP/S-75103 UPPSALA//SWEDEN/  
Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 1991, V39, N11, P2387-2399  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/62 (Item 27 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

01091915 Genuine Article#: FV832 No. References: 51  
**Title: ON IDENTIFICATION OF STABLE SYSTEMS AND OPTIMAL APPROXIMATION**  
Author(s): MAKILA PM  
Corporate Source: SWEDISH UNIV TURKU, DEPT CHEM ENGN/SF-20500  
TURKU//FINLAND/  
Journal: AUTOMATICA, 1991, V27, N4, P663-676  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)



10/3/63 (Item 28 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

01067309 Genuine Article#: FT708 No. References: 73

**Title: LIKELIHOOD AND COST AS PATH-INTEGRALS**

Author(s): WHITTLE P

Corporate Source: UNIV CAMBRIDGE, STAT LAB, 16 MILL LANE/CAMBRIDGE CB2  
1SB//ENGLAND/

Journal: JOURNAL OF THE ROYAL STATISTICAL SOCIETY SERIES B-METHODOLOGICAL,  
1991, V53, N3, P505-538

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/64 (Item 29 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

00995976 Genuine Article#: FM043 No. References: 138

**Title: IMPLICIT LINEAR-SYSTEMS**

Author(s): APLEVICH JD

Corporate Source: UNIV WATERLOO, DEPT ELECT ENGN/WATERLOO N2L  
3G1/ONTARIO/CANADA/

Journal: LECTURE NOTES IN CONTROL AND INFORMATION SCIENCES, 1991, V152, P1&

Language: ENGLISH Document Type: ARTICLE

10/3/65 (Item 30 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

00907139 Genuine Article#: FF068 No. References: 243

**Title: INVERSION OF POTENTIAL-FIELD DATA**

Author(s): MOHARIR PS

Corporate Source: NATL GEOPHYS RES INST/HYDERABAD 500007/ANDHRA  
PRADESH/INDIA/

Journal: PROCEEDINGS OF THE INDIAN ACADEMY OF SCIENCES-EARTH AND PLANETARY  
SCIENCES, 1990, V99, N4, P473-514

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

10/3/66 (Item 31 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2004 Inst for Sci Info. All rts. reserv.

00883334 Genuine Article#: FD675 No. References: 5

**Title: A GENERAL POLYNOMIAL SOLUTION TO THE MMSE DECONVOLUTION PROBLEM**

Author(s): CHISCI L; MOSCA E

Corporate Source: UNIV FLORENCE, DIPARTIMENTO SISTEMI & INFORMAT/I-50139  
FLORENCE//ITALY/

Journal: IEEE TRANSACTIONS ON SIGNAL PROCESSING, 1991, V39, N4, P962-965

Language: ENGLISH Document Type: LETTER (Abstract Available)

10/3/67 (Item 1 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs  
(c) 2004 The HW Wilson Co. All rts. reserv.

2552548 H.W. WILSON RECORD NUMBER: BAST02137126

**A Direct Approach to H2 Optimal Deconvolution of Periodic Digital  
Channels**

Zhou, Huan; Xie, Lihua; Zhang, Cishen

IEEE Transactions on Signal Processing v. 50 no7 (July 2002) p. 1685-98

DOCUMENT TYPE: Feature Article ISSN: 1053-587X

10/3/68 (Item 2 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

(c) 2004 The HW Wilson Co. All rts. reserv.

2370663 H.W. WILSON RECORD NUMBER: BAST01056280

**Mixed  $H_2/H[\infty]$  deconvolution of uncertain periodic FIR channels**

Wang, Song; Xie, Lihua; Zhang, Cishen

Signal Processing v. 81 no10 (Oct. 2001) p. 2089-103

DOCUMENT TYPE: Feature Article ISSN: 0165-1684

10/3/69 (Item 3 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

(c) 2004 The HW Wilson Co. All rts. reserv.

2311574 H.W. WILSON RECORD NUMBER: BAST01010785

**Genetic algorithm approach to fixed-order mixed  $H_2/H[\infty]$  optimal deconvolution filter designs**

Hung, Jui-Chung; Chen, Bor-Sen

IEEE Transactions on Signal Processing v. 48 no12 (Dec. 2000) p. 3451-61

DOCUMENT TYPE: Feature Article ISSN: 1053-587X

10/3/70 (Item 4 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

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2065813 H.W. WILSON RECORD NUMBER: BAST00020605

**Fixed-order  $H_2$  and  $H[\infty]$  optimal deconvolution filter designs**

Chen, Bor-Sen; Hung, Jui-Chung

Signal Processing v. 80 no2 (Feb. 2000) p. 311-31

DOCUMENT TYPE: Feature Article ISSN: 0165-1684

13/5/1 (Item 1 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

06584643 E.I. No: EIP03447697822

**Title:** Adaptive blind source separation using a risk-sensitive criterion  
**Author:** Shimizu, Junya  
**Corporate Source:** IBM Research Tokyo Research Laboratory, Yamato-shi, 242-8502, Japan  
**Source:** IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences v E86-A n 7 July 2003. p 1724-1731  
**Publication Year:** 2003  
**CODEN:** IFESEX **ISSN:** 0916-8508  
**Language:** English  
**Document Type:** JA; (Journal Article) **Treatment:** A; (Applications); T; (Theoretical); X; (Experimental)  
**Journal Announcement:** 0311W1

**Abstract:** An adaptive blind signal separation filter is proposed using a risk-sensitive criterion framework. This criterion adopts an exponential type function. Hence, the proposed criterion varies the consideration weight of an adaptation quantity depending on errors in the estimates: the adaptation is accelerated when the estimation error is large, and unnecessary acceleration of the adaptation does not occur close to convergence. In addition, since the algorithm derivation process relates to an  $H^{\infty}$  infinity filtering, the derived algorithm has robustness to perturbations or estimation errors. Hence, this method converges faster than conventional least squares methods. Such effectiveness of the new algorithm is demonstrated by simulation. 11 Refs.

**Descriptors:** \*Blind source separation; Adaptive algorithms; Perturbation techniques; Least squares approximations; Independent component analysis; Learning algorithms; Principal component analysis; Problem solving; Computer simulation

**Identifiers:** Risk-sensitive criterion; Estimation error

**Classification Codes:**

716.1 (Information & Communication Theory); 723.5 (Computer Applications); 921.6 (Numerical Methods)  
716 (Electronic Equipment, Radar, Radio & Television); 723 (Computer Software, Data Handling & Applications); 921 (Applied Mathematics)  
71 (ELECTRONICS & COMMUNICATION ENGINEERING); 72 (COMPUTERS & DATA PROCESSING); 92 (ENGINEERING MATHEMATICS)

13/5/2 (Item 2 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.

05099446 E.I. No: EIP98084345233

**Title:**  $H^{\infty}$  infinity filtering for noise reduction using a total least squares estimation approach

**Author:** Shimizu, Jun'ya ; Mitra, Sanjit K.  
**Corporate Source:** Univ of California, Santa Barbara, CA, USA  
**Conference Title:** Proceedings of the 1998 IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP. Part 3 (of 6).  
**Conference Location:** Seattle, WA, USA **Conference Date:** 19980512-19980515  
**Sponsor:** IEEE  
**E.I. Conference No.:** 48801  
**Source:** ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings v 3 1998. IEEE, Piscataway, NJ, USA, 98CH36181. p 1645-1648  
**Publication Year:** 1998  
**CODEN:** IPRODJ **ISSN:** 0736-7791  
**Language:** English  
**Document Type:** CA; (Conference Article) **Treatment:** A; (Applications); T; (Theoretical)  
**Journal Announcement:** 9810W3  
**Abstract:** A noise reduction algorithm for signals corrupted by additive unknown  $L/2$  white noise is proposed using an  $H^{\infty}$  infinity filtering

framework. The proposed algorithm consists of two steps: a signal enhancement step and a parameter estimation step, which are iterated at each instant. To weaken the dependence between the signal enhancement step and the parameter estimation step, a total least squares estimation step for the dynamical model parameters needed in the **H\*\*infinity** filtering is introduced. The effectiveness of the proposed algorithm under low signal-to-noise ratio environments is demonstrated by simulation. (Author abstract) 6 Refs.

Descriptors: \*Signal filtering and prediction; Signal to noise ratio; White noise; Least squares approximations; Algorithms; Parameter estimation; Iterative methods; Mathematical models; Computer simulation

Identifiers: Signal enhancement; Total least squares estimation

Classification Codes:

716.1 (Information & Communication Theory); 921.6 (Numerical Methods); 723.5 (Computer Applications)  
716 (Radar, Radio & TV Electronic Equipment); 921 (Applied Mathematics); 723 (Computer Software)  
71 (ELECTRONICS & COMMUNICATIONS); 92 (ENGINEERING MATHEMATICS); 72 (COMPUTERS & DATA PROCESSING)

13/5/3 (Item 1 from file: 94)

DIALOG(R) File 94:JICST-EPlus

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05325660 JICST ACCESSION NUMBER: 03A0062996 FILE SEGMENT: JICST-E

Development of Atomic Level GMM Positioning/Alignment System for Driving a Gigantic Weight Spindle. Core Technology for Advanced .PHI.300mm Si Wafer Ultraprecision Machine Tool.

EDA HIROSHI (1); ZHOU L (1); KONDO RYO (1); NAKANO HIROTAMI (1); SHIMIZU JUN (1); MORI TERUO (2)

(1) Ibaraki Univ., Faculty of Engineering, JPN; (2) Tdk Seimitsu Kogakkaishi(Journal of the Japan Society for Precision Engineering), 2003, VOL.69,NO.1, PAGE.100-104, FIG.19, REF.11

JOURNAL NUMBER: F0268ABQ ISSN NO: 0912-0289

UNIVERSAL DECIMAL CLASSIFICATION: 621.382.002.2 621.92

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: In order to achieve damage free surface of Si wafer by a single step grinding process, each cutting edge should be controlled below the critical depth of cut. Additionally, the achievable wafer flatness by infeed grinding significantly depends upon the alignment between the wafer and the wheel. As one of the core technologies of an integrated manufacturing system for .PHI.300mm silicon wafer, a GMM (giant magnetostrictive material) actuated positioning/alignment device has been designed and developed to control half a ton payload at .ANGS. resolution over the several .MU.m stroke range (about 5.MU.m) and simultaneously to align the co-axis between the work and wheel at the resolution of 0.1". This paper describes the design of the GMM actuator and elastically deformable mechanism for position/alignment, the control schemes and on-situ performance. (author abst.)

DESCRIPTORS: wafer(IC); silicon; ultraprecision machining; magnetostriction; actuator; headstock; positioning; alignment; surface roughness; magnetostrictive material; position control; **H infinity** control; large type; grinding; positioning device; magnetic hysteresis

IDENTIFIERS: Preisach model

BROADER DESCRIPTORS: solid state circuit parts; circuit component; parts; electric apparatus and parts; third row element; element; carbon group element; precision machining; working and processing; magnetoelastic effect; magnetomechanical effect; magnetic property; magnetic field effect; effect; control equipment; equipment; machine tool element; machine element; surface quality; flatness(property); property; magnetic material; material; control; robust control; type; cutting(machining); machining; magnetization characteristic; characteristic; hysteresis; irreversible process; process

CLASSIFICATION CODE(S): NC03030V; QC03000R

13/5/4 (Item 2 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

04926686 JICST ACCESSION NUMBER: 01A0569766 FILE SEGMENT: JICST-E  
**Development of Control of Vibration Suppression Device Using Giant**

**Magnetostriction Material.**

EDA HIROSHI (1); OKADA YOJI (1); SHIMIZU JUN (1); ZHOU L (1); YAMAMOTO YOSHIO (2); UENO SATOSHI (3)

(1) Ibaraki Univ.; (2) Tokai Univ.; (3) Ibaraki Univ., Grad. Sch.  
Nippon Kikai Gakkai Undo to Shindo no Seigyo Shinpojiumu Koen Ronbunshu,  
2001, VOL.7th, PAGE.233-236, FIG.11, REF.3

JOURNAL NUMBER: L1196AAG

UNIVERSAL DECIMAL CLASSIFICATION: 624.041/.047 629.78

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

ARTICLE TYPE: Short Communication

MEDIA TYPE: Printed Publication

ABSTRACT: The giant magnetostrictive materials(GMM) is characterized by high power, large displacement, fast response as well as safety, long lives and flexibility, which are often required by the aerospace structure. As one application of the giant magnetostrictive actuator, the vibration suppression for the aerospace structure has been explored. In this report, results of the several simple vibration control simulations and experiments using developed devise and/or simulation model are reported. They show that vibration suppression in 10s can be realized. Low voltage drive of GMM in vacuum and inflammable atmosphere may be of vital significance. A novel pressure sensor incorporating with a telecommunication capability has been developed and its performance has also been evaluated. (author abst.)

DESCRIPTORS: magnetostriction; vibration control; actuator; aerospace structure; computer simulation; telemetry; H infinity control; robust control

BROADER DESCRIPTORS: magnetoelastic effect; magnetomechanical effect; magnetic property; magnetic field effect; effect; control; control equipment; equipment; structure(construction); computer application; utilization; simulation; measurement

CLASSIFICATION CODE(S): HD02000E; QK08000Y

13/5/5 (Item 3 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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04049874 JICST ACCESSION NUMBER: 99A0402807 FILE SEGMENT: JICST-E  
**Study on Control of Vibration Suppression Device Using Giant**

**Magnetostriction Material.**

EDA HIROSHI (1); OKADA YOJI (1); SHIMIZU JUN (1); YAMAMOTO YOSHIO (2);  
UENO SATOSHI (3)

(1) Ibaraki Univ.; (2) Tokai Univ.; (3) Ibaraki Univ., Grad. Sch.  
Nippon Kikai Gakkai Undo to Shindo no Seigyo Shinpojiumu Koen Ronbunshu,  
1999, VOL.6th, PAGE.355-358, FIG.8, REF.2

JOURNAL NUMBER: L1196AAG

UNIVERSAL DECIMAL CLASSIFICATION: 629.7.01/.02

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: Practically speaking, research on Giant Magnetostriction Materials(GMM) has its origin at the finding by A.E. Clark and his colleagues in 1963 that a group of rare-earth alloys exhibit outstanding magnetostriction of as much as several thousands ppm near absolute zero temperature. In this article, development of a vibration suppression device equipped with giant magnetostriction actuators for the space structure is reported. Simulation model of the control target and the controller are proposed and simulation of vibration control is

performed. From the simulation result, possibility of the fast vibration suppression is confirmed. Several simple vibration control experiments using produced device is also conducted and they show that vibration suppression in 10s can be realized. (author abst.)

DESCRIPTORS: aerospace structure; vibration isolator; magnetostriction; actuator; system design; **H infinity** control; simulation model; vibration control structure

BROADER DESCRIPTORS: structure(construction); equipment; magnetoelastic effect; magnetomechanical effect; magnetic property; magnetic field effect; effect; control equipment; design; robust control; control; model; earthquake-resistant structure; structure

CLASSIFICATION CODE(S): QK04010H

File 347:JAPIO Nov 1976-2004/May(Updated 040903)  
(c) 2004 JPO & JAPIO  
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200457  
(c) 2004 Thomson Derwent  
File 348:EUROPEAN PATENTS 1978-2004/Aug W05  
(c) 2004 European Patent Office  
File 349:PCT FULLTEXT 1979-2002/UB=20040902,UT=20040826  
(c) 2004 WIPO/Univentio

Set	Items	Description
S1	1277	AU=SHIMIZU J?
S2	0	S1 AND (H())INFINITY)

File 347:JAPIO Nov 1976-2004/May(Updated 040903)

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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200457

(c) 2004 Thomson Derwent

Set	Items	Description
S1	68	H()INFINITY
S2	74539	SIGNAL? ?(3N)(SEPARAT? OR DIVID??? OR DIVISION? ? OR SPLIT- ???? OR BREAK???()UP)
S3	100	BLIND(2W)SEPARAT?
S4	513	DECONVOL?
S5	0	S1 AND S2
S6	0	S1 AND S3
S7	0	S1 AND S4



File 275:Gale Group Computer DB(TM) 1983-2004/Sep 09  
          (c) 2004 The Gale Group  
 File 621:Gale Group New Prod.Annou.(R) 1985-2004/Sep 08  
          (c) 2004 The Gale Group  
 File 636:Gale Group Newsletter DB(TM) 1987-2004/Sep 09  
          (c) 2004 The Gale Group  
 File 16:Gale Group PROMT(R) 1990-2004/Sep 09  
          (c) 2004 The Gale Group  
 File 160:Gale Group PROMT(R) 1972-1989  
          (c) 1999 The Gale Group  
 File 148:Gale Group Trade & Industry DB 1976-2004/Sep 08  
          (c)2004 The Gale Group  
 File 624:McGraw-Hill Publications 1985-2004/Sep 08  
          (c) 2004 McGraw-Hill Co. Inc  
 File 15:ABI/Inform(R) 1971-2004/Sep 08  
          (c) 2004 ProQuest Info&Learning  
 File 647:CMP Computer Fulltext 1988-2004/Aug W5  
          (c) 2004 CMP Media, LLC  
 File 674:Computer News Fulltext 1989-2004/Aug W3  
          (c) 2004 IDG Communications  
 File 696:DIALOG Telecom. Newsletters 1995-2004/Sep 08  
          (c) 2004 The Dialog Corp.  
 File 369:New Scientist 1994-2004/Aug W5  
          (c) 2004 Reed Business Information Ltd.

Set	Items	Description
S1	66	H() INFINITY
S2	13801	SIGNAL? ?(3N) (SEPARAT? OR DIVID??? OR DIVISION? ? OR SPLIT- ???? OR BREAK???())UP)
S3	40	BLIND(2W)SEPARAT?
S4	670	DECONVOL?
S5	0	S1(100N)S2
S6	0	S1(100N)S3
S7	0	S1(100N)S4

File 348:EUROPEAN PATENTS 1978-2004/Aug W05

(c) 2004 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20040902,UT=20040826

(c) 2004 WIPO/Univentio

Set	Items	Description
S1	69	H()INFINITY
S2	54369	SIGNAL? ?(3N) (SEPARAT? OR DIVID??? OR DIVISION? ? OR SPLIT- ???? OR BREAK???()UP)
S3	135	BLIND(2W)SEPARAT?
S4	4705	DECONVOL?
S5	0	S1(100N)S2
S6	0	S1(100N)S3
S7	0	S1(100N)S4
S8	6	S1 AND S2
S9	0	S1 AND S3
S10	1	S1 AND S4
S11	7	S8:S10

11/5,K/1 (Item 1 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01704740

**Differential pumping system and exposure apparatus**  
**Differentialpumpvorrichtung und Belichtungsgerät**  
**Systeme de pompeage differentiel et appareil d'exposition**  
PATENT ASSIGNEE:

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LEGAL REPRESENTATIVE:

Beresford, Keith Denis Lewis et al (28273), BERESFORD & Co. 16 High  
Holborn, London WC1V 6BX, (GB)

PATENT (CC, No, Kind, Date): EP 1396758 A2 040310 (Basic)

APPLICATION (CC, No, Date): EP 2003255177 030821;

PRIORITY (CC, No, Date): JP 2002258087 020903; JP 2003107771 030411

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;  
HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS: G03F-007/20

ABSTRACT EP 1396758 A2

A differential pumping system includes a first chamber for storing a  
light source that emits pulsed light, a first exhaust unit for exhausting  
said first chamber, a second chamber being connectible to the first  
chamber to receive the pulsed light, a second exhaust unit for exhausting  
said second chamber, and a connection control mechanism between the first  
and second chambers for connecting the first chamber to the second  
chamber when the pulsed light emits, and for disconnecting the first  
chamber from the second chamber when the pulsed light does not emit.

ABSTRACT WORD COUNT: 92

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 040310 A2 Published application without search report

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
----------------	----------	--------	------------

CLAIMS A	(English)	200411	1365
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SPEC A	(English)	200411	9374
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Total word count - document A	10739
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Total word count - document B	0
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Total word count - documents A + B	10739
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...SPECIFICATION trigger signal of the pulsed light, and generating a  
reference signal for the rotation of the rotator, calculating a phase  
difference signal from the reference **signal** and a **divided signal** so  
that the rotation of the rotator has the same frequency as that of the  
reference signal, calculating a phase difference from the reference  
signal...monitored by an encoder 1009, and divided by an Ne divider 1010  
that is set so that it has the same frequency as the reference **signal** .  
Two **divided signals** are input to a phase comparator 1011 for  
exclusive OR operations, providing a waveform shown in a fifth stage in  
FIG. 8. The duty ratio...

...circuit uses Proportional Integral and Differential ("PID") control for  
control operations, while the DSP uses a modern control, such as PID

control, optimal regulator and **H ( infinity )** control for control operations. The motor 314's driving 1007 is controlled in accordance with the control amount from the controller 320, or so that...

...of the sensor 322 is determined by a hole diameter.

The rotator 2112's rotation is monitored by an encoder 2114 in FIG. 24, and **divided** into an encoder **signal** (in a fourth stage in FIG. 25) by an Ne divider 2115 that is set so that it has the same frequency as the reference...

...and the analogue circuit uses PDI control for control operations, while the DSP performs uses a modern control, such as PID control, optimal regulator and **H ( infinity )** control for control operations. A motor 2111 is driven in accordance with the control amount from a phase controller 2110. The motor 2111 may use...

...CLAIMS trigger signal of the pulsed light, and generating a reference signal for the rotation of the rotator;  
calculating a phase difference signal from the reference **signal** and a **divided signal** so that the rotation of the rotator has the same frequency as that of the reference signal;  
calculating a phase difference from the reference signal...

11/5,K/2 (Item 2 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2004 European Patent Office. All rts. reserv.

01265085

Air-fuel ratio control apparatus for multicylinder internal combustion engine

Steuerungsvorrichtung für das Kraftstoff-Luftverhältnis in einer mehrzylindrigen Brennkraftmaschine

Dispositif de commande du rapport air-carburant pour moteur a combustion interne a plusieurs cylindres

PATENT ASSIGNEE:

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Akazaki, Shusuke, c/o K.K. Honda Giyutsu Kenkyusho, 4-1 Chuo 1-chome, Wako-shi, Saitama-ken, (JP)

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PATENT (CC, No, Kind, Date): EP 1091109 A2 010411 (Basic)  
EP 1091109 A3 030108

APPLICATION (CC, No, Date): EP 2000308874 001009;

PRIORITY (CC, No, Date): JP 99288511 991008

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: F02D-041/14; F02D-041/26; F02D-041/36

ABSTRACT EP 1091109 A2

An exhaust system is regarded as being equivalent to a system for generating an output of an O2)) sensor (12) or exhaust gas sensor from a combined air-fuel ratio that is produced by combining outputs of air-fuel ratio sensors (13, 14) associated with respective cylinder groups (3, 4) according to a filtering process of the mixed model type. With the equivalent system as an object to be controlled, an exhaust system controller (15) determines a target value for the combined air-fuel ratio, and determines a target air-fuel ratio for the cylinder groups (3, 4) from the target combined air-fuel ratio. The outputs of the air-fuel ratio sensors (13, 14) are converted to the target combined air-fuel ratio under feedback control.

ABSTRACT WORD COUNT: 121

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010411 A2 Published application without search report

Search Report: 030108 A3 Separate publication of the search report

Examination: 030625 A2 Date of request for examination: 20030422

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
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CLAIMS A	(English)	200115	2275
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SPEC A	(English)	200115	33269
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Total word count - document A	35544
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Total word count - document B	0
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Total word count - documents A + B	35544
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...SPECIFICATION No. 5,531,208, for example, and will not be described below.

Each of the PID controllers 42 of the local feed-back controller 36 divides the output signal KACT/B from the LAF sensor 14 by an average value of the feedback correction coefficients #nKLAF for all the cylinders of the cylinder group...combined differential air-fuel ratio kcmd/t. However, any of various other feedback control processes including an adaptive control process, an optimum control process, an H ( infinity ) control process, etc. may be used.

In the above embodiment, the values of the gain coefficients a1, a2, b1 which are parameters to be set...

11/5,K/3 (Item 3 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00711605

Reconfigurable data processing stage

Rekonfigurierbare Datenverarbeitungsstufe

Etage d'operation de donnees reconfigurable

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 674446 A2 950927 (Basic)

EP 674446 A3 960814

EP 674446 B1 010801

APPLICATION (CC, No, Date): EP 95301300 950228;

PRIORITY (CC, No, Date): GB 9405914 940324

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IE; IT; LI; NL

INTERNATIONAL PATENT CLASS: H04N-007/24; G06F-013/00; G06F-009/38

CITED PATENTS (EP B): EP 572766 A; EP 576749 A; WO 94/25935 A

CITED REFERENCES (EP B):

ARCHITECTURE, UNIVERSITY PARK, AUG. 15 - 19, 1988, vol. 1, 15 August 1988, BRIGGS F A, pages 209-216, XP000079309 KAORU UCHIDA ET AL: "A PIPELINED DATAFLOW DATAFLOW PROCESSOR ARCHITECTURE BASED ON A VARIABLE LENGTH TOKEN CONCEPT"

IEEE JOURNAL OF SOLID-STATE CIRCUITS, vol. 23, no. 1, pages 111-117, XP000051576 KOMORI S ET AL: "AN ELASTIC PIPELINE MECHANISM BY SELF-TIMED CIRCUITS"

IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS, vol. 36, no. 10, 1 October

1989, pages 1267-1274, XP000085313 TOKUMICHI MURAKAMI ET AL: "A DSP ARCHITECTURAL DESIGN FOR LOW BIT-RATE MOTION VIDEO CODEC"  
 IEE PROCEEDINGS E. COMPUTERS & DIGITAL TECHNIQUES, vol. 139, no. 3 PART E, 1 May 1992, pages 269-279, XP000306411 ELLIOTT J A ET AL: "REAL-TIME SIMULATION OF VIDEOPHONE IMAGE CODING ALGORITHMS ON RECONFIGURABLE MULTICOMPUTERS"  
 PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON CONSUMER ELECTRONICS, ROSEMONT, JUNE 8 - 10, 1993, no. CONF. 12, 8 June 1993, INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, page 294/295 XP000427624 MAYER A C: "THE ARCHITECTURE OF A SINGLE-CHIP PROCESSOR ARRAY FOR VIDEOCOMPRESSION"  
 4TH INTERNATIONAL CONFERENCE ON SIGNAL PROCESSING APPLICATIONS & TECHNOLOGY, vol. 2, 28 September 1993 - 1 October 1993, SANTA CLARA, CALIFORNIA, US, pages 1031-1038, XP002014370 TOM KOPET: "Programmable architectures for real-time video compression"  
 WESCON '84 CONFERENCE RECORD, ANAHEIM, CA, USA, 30 October 1984 - 1 November 1984, pages 4.6.1-4.6.10, XP002014371 Y.M.CHONG: "A Data-Flow Architecure for Digital Image Processing";

ABSTRACT EP 674446 A3

A multi-standard video decompression apparatus has a plurality of stages interconnected by a two-wire interface arranged as a pipeline processing machine. Control tokens and DATA Tokens pass over the single two-wire interface for carrying both control and data in token format. A token decode circuit is positioned in certain of the stages for recognizing certain of the tokens as control tokens pertinent to that stage and for passing unrecognized control tokens along the pipeline. Reconfiguration processing circuits are positioned in selected stages and are responsive to a recognized control token for reconfiguring such stage to handle an identified DATA Token. A wide variety of unique supporting subsystem circuitry and processing techniques are disclosed for implementing the system. (see image in original document)

ABSTRACT WORD COUNT: 144

NOTE:

Figure number on first page: 10

LEGAL STATUS (Type, Pub Date, Kind, Text):

Grant:	010801 B1	Granted patent
Application:	950927 A2	Published application (A1with Search Report ;A2without Search Report)
Lapse:	030423 B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20010801, BE 20010801, GB 20020228, IE 20020228, NL 20010801,
Lapse:	030102 B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20010801, BE 20010801, GB 20020228,
Lapse:	020717 B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20010801, BE 20010801,
Lapse:	020410 B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20010801,
Oppn None:	020724 B1	No opposition filed: 20020503
Lapse:	030219 B1	Date of lapse of European Patent in a contracting state (Country, date): AT 20010801, BE 20010801, GB 20020228, NL 20010801,
Change:	960501 A2	International patent classification (change)
Change:	960501 A2	Obligatory supplementary classification (change)
Search Report:	960814 A3	Separate publication of the European or International search report
Examination:	970409 A2	Date of filing of request for examination: 970212
Change:	971105 A2	Representative (change)
Examination:	990901 A2	Date of dispatch of the first examination report: 19990713

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB95	2475
CLAIMS B	(English)	200131	1079
CLAIMS B	(German)	200131	1072
CLAIMS B	(French)	200131	1186
SPEC A	(English)	EPAB95	125236
SPEC B	(English)	200131	121335
Total word count - document A			127738
Total word count - document B			124672
Total word count - documents A + B			252410

...SPECIFICATION updates the quantization step size used to quantize coefficients which describe, for example, an image to be transmitted over a communications channel. The data is **divided** into sectors, each sector including a plurality of blocks. The blocks are encoded, for example, using DCT coding, to generate a sequence of coefficients for...storage elements. Also, although the VALID signal and the data lines connect the various pipeline stages as before, for ease of illustration, only the **ACCEPT signal** is shown in Fig. 3. A change of state during a clock phase of certain of the **ACCEPT signals** is indicated in Fig. 3 using...

...is LOW, but since this storage element does not contain valid data, it sets the **ACCEPT signal** into its secondary storage element HIGH.

The **ACCEPT signal** from the secondary storage elements of Stage F into the primary storage elements of Stage E is also set HIGH since the secondary storage elements...

...forth.

The primary storage element of Stage F still does not contain valid data during the o0 phase in Cycle 2 and, therefore, the **ACCEPT signal** from the primary storage elements into the secondary storage elements of Stage F remains HIGH. During the o1 phase in Cycle 2, data can therefore ...**ACCEPT**. Conventional logic gates, NAND1 and NAND2, perform the NAND operation, and the inverters INV1, INV2 form the logical inverses of the respective acceptance **signals**.

As is well known in the art of digital design, the output from a NAND gate is a logical "1" when any or all of...from its acceptance latch LA) that is LOW, and its data latch LDIN or LDOUT will not be loaded. Hence, as long as the acceptance **signal** (the output from the acceptance latch) of a given stage or side (input or output) of a stage is LOW, its corresponding data latch will...**TOKEN**. In the normal situation, the **signal** QI1 at the input to NAND20 and the signal S1 at the input to NAND22 will both be at logic "1". It can be shown...

...token (and, thus, includes the address field for the token). In this situation, the signal S1 may be either "0" or "1". As explained earlier, **signal** S1 will be "0" if the MIDTOKEN **signal** will become "0", indicating that the circuitry is not processing a DATA token.

If QI1 is "0" and SO is "0", thereby indicating a DATA token, then the **signal** S2 will be "1" (regardless of the other input to NAND22 from the output of NAND20). As a result, this "1" value will be loaded...

understand the relationship between tokens which, alone or in combination with other control tokens, emulate the nondata information contained in the standard bit stream. A **separate** set of index **signals**, including flag signals, are generated by each state machine to handle some of the processing within that state machine. Values carried in the standards can ...

...SPECIFICATION with the two-wire transfer control;

Figures. 5a and 5b taken together depict one example of a timing diagram that shows the relationship between timing **signals**, input and output data, and internal control signals used in the pipeline stage ... understand the relationship between tokens which, alone or in combination with other control tokens, emulate the nondata information contained in the standard bit stream. A **separate** set of index **signals**, including flag signals, are generated by each state machine to handle some of the processing within that state machine. Values carried in the standards can

...allows random access and enhanced error recovery.

A STOP(underscore)AFTER(underscore)PICTURE token is a method of achieving a clear end to decoding which **signals** the end of a picture and clears the decoder pipeline, i.e., channel change.

Furthermore, padding a token is a way of passing an arbitrary...until either there is no more data, or RAM1 is full. When RAM1 311 is full, the input side gives up control and sends a **signal** to the read side to indicate that RAM1 is now ready to be read. This signal passes between two asynchronous clock regimes and, therefore, passes...is configured for JPEG operation.

#### A.2.1.4 H.261 decoding

The Spatial Decoder and the Temporal Decoder are both required to implement an H.261 video decoder. The DRAM interfaces on both devices are configurable to allow the quantity of DRAM required for proper operation to be reduced when...

11/5,K/4 (Item 4 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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00334258

INDUSTRIAL CONTROL SYSTEMS.

REGELUNGSSYSTEM.

SYSTEMES DE COMMANDE DE PROCESSUS INDUSTRIELS.

PATENT ASSIGNEE:

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AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)

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Fairbairn, Niall A., 59 Durward Ave., Shawlands, Glasgow G41 3UW, (GB)

LEGAL REPRESENTATIVE:

Chandler, Derek Richard et al (29221), Patents Department British  
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PATENT (CC, No, Kind, Date): EP 377678 A1 900718 (Basic)  
EP 377678 B1 941214  
WO 8905002 890601

APPLICATION (CC, No, Date): EP 88910072 881124; WO 88GB1024 881124

PRIORITY (CC, No, Date): GB 8727602 871125

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: G05B-013/02;

CITED REFERENCES (EP A):

See also references of WO8905002;

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application:	900718 A1	Published application (A1with Search Report ;A2without Search Report)
Examination:	900718 A1	Date of filing of request for examination: 900503
Change:	920902 A1	Representative (change)
*Assignee:	920902 A1	Applicant (transfer of rights) (change): BRITISH TECHNOLOGY GROUP LTD (1475430) 101 Newington Causeway London SE1 6BU (GB) (applicant designated states: AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)
Examination:	921216 A1	Date of despatch of first examination report: 921103
Grant:	941214 B1	Granted patent
Lapse:	950726 B1	Date of lapse of the European patent in a Contracting State: DE 950315
Lapse:	950802 B1	Date of lapse of the European patent in a Contracting State: CH 941214, LI 941214, DE 950315
Lapse:	950802 B1	Date of lapse of the European patent in a



Contracting State: CH 941214, LI 941214, DE 950315

Lapse: 950830 B1 Date of lapse of the European patent in a Contracting State: CH 941214, LI 941214, DE 950315, NL 941214

Lapse: 951004 B1 Date of lapse of the European patent in a Contracting State: AT 941214, CH 941214, LI 941214, DE 950315, NL 941214

Lapse: 951011 B1 Date of lapse of the European patent in a Contracting State: AT 941214, CH 941214, LI 941214, DE 950315, FR 950512, NL 941214

Lapse: 951018 B1 Date of lapse of the European patent in a Contracting State: AT 941214, BE 941214, CH 941214, LI 941214, DE 950315, FR 950512, NL 941214, SE 950314

Lapse: 951018 B1 Date of lapse of the European patent in a Contracting State: AT 941214, BE 941214, CH 941214, LI 941214, DE 950315, FR 950512, NL 941214, SE 950314

Oppn None: 951206 B1 No opposition filed

Lapse: 991020 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 19941214, BE 19941214, CH 19941214, LI 19941214, DE 19950315, FR 19950512, IT 19941214, NL 19941214, SE 19950314,

LANGUAGE (Publication,Procedural,Application): English; English; English  
 FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	428
CLAIMS B	(German)	EPBBF1	414
CLAIMS B	(French)	EPBBF1	500
SPEC B	(English)	EPBBF1	8459
Total word count - document A			0
Total word count - document B			9801
Total word count - documents A + B			9801

...SPECIFICATION detected in the general characteristics or behaviour of the system being controlled by continual parameter adjustment.

One known controller design technique is known as H ( **H - infinity** ) design. This has various advantages, but it has the drawback that the calculations involved in determining an H controller in any particular instance are in...p coefficients to an adder circuit 65. The outputs of the adders 62 and 65 are fed to a division circuit 66, which produces the **signal u** by **dividing** the output of adder 62 by the output of adder 66.

It will be noted that there is no scaling circuit for the undelayed u  
 ...

11/5,K/5 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01040391

VIBRATION CONTROL UTILIZING SIGNAL DETRENDING

MAITRISE DE VIBRATION PAR DECOMPOSITION DE SIGNAL

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

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 , US (Nationality), (Designated only for: US)

WARKENTIN David J, 199 Mass Avenue, Apt. 914, Boston, MA 02115, US, US  
 (Residence), US (Nationality), (Designated only for: US)

Legal Representative:

ROSS John R (agent), Cymer, Inc., Legal Department MS/1-2A, 16750 Via Del Campo Court, San Diego, CA 92127-1712, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200369733 A1 20030821 (WO 0369733)  
Application: WO 2003US1332 20030115 (PCT/WO US0301332)  
Priority Application: US 200274059 20020211; US 2002112443 20020329

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG  
SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT SE SI  
SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

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Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4673

English Abstract

A vibration reducing system includes a position control drive (65) and a vibration control drive (45). At least one position sensor (60) is used to provide feedback signals which are in turn uneses to provide control signals fore both the position control drive (65) and the vibration control drive (45).

French Abstract

L'invention concerne un systeme de reduction de vibration comprenant une unite de commande de position (65) et une unite de commande de vibration (45). Un capteur de position (60), au moins, est utilise afin de fournir des signaux de retroaction qui sont utilises pour envoyer des signaux de commande a la fois a l'unite de commande de position (65) et a l'unite de commande de vibration (45).

Legal Status (Type, Date, Text)

Publication 20030821 A1 With international search report.

Publication 20030821 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... vibration reduction feedback controller may be any SISO or MIMO controller. The MIMO controller is based upon Linear Quadratic Guassian (LQG) techniques, or musynthesis, or **H - infinity** techniques.

Accordingly, the reader is requested to determine the scope of the invention by the appended claims and their legal equivalents and not by the...

Claim

... at least one vibration control drive, and

E) a computer processor for controlling vibration said processor having been programmed with

(1) a separation algorithm for **separating** vibration **signals** from said feedback position signals, and

(2) a feedback control algorithm for commanding said vibration control drive to reduce vibrations in said motion controlled component...

11/5,K/6 (Item 2 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00989926

**ARCHITECTURE TOOL AND METHODS OF USE  
INSTRUMENT D'ARCHITECTURE ET PROCEDES D'UTILISATION**

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Priority Application: US 2001314344 20010823; US 2001337378 20011204; US  
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Designated States:

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
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Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 48029

**English Abstract**

The invention provides an apparatus and methods for depositing materials on a substrate, and for performing other selected functions, such as material destruction and removal, temperature control, imaging, detection, therapy and positional and locational control. In various embodiments, the apparatus and methods are suitable for use in a tabletop setting, in vitro or in vivo.

**French Abstract**

L'invention concerne un dispositif et des procedes permettant de déposer des matieres sur un substrat et d'exécuter d'autres fonctions choisies, tels que destruction et élimination de matieres, regulation de la temperature, visualisation, detection, traitement et commande de positionnement et de localisation. Dans diverses formes de realisation, ce dispositif et ces procedes conviennent pour une utilisation dans des installations de table (tabletop), in vitro ou in vivo.

Legal Status (Type, Date, Text)

Publication 20030306 A2 Without international search report and to be

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Correction 20030717 Corrections of entry in Section 1: under (30) add  
"60/337,383, 4 December 2001 (04.12.2001), US" and  
"60/340,706, 11 December 2001 (11.12.2001), US"  
Republication 20030717 A2 Without international search report and to be  
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Fulltext Availability:  
Claims

Claim

... broad band centered near 3,600 cm, or 2.8 it m). A two-pronged approach to remote IR analysis of cellular surfaces comprises (1) **deconvoluting** the water signal and (2) focusing on the spectrum away from the water lines. In the first, the results of research at UA, which show...FD controller. In other embodiments, the DPS may be reduced to a FD model that allows the design of a typical robust control scheme ( **H** - **infinity** , sliding-mode, adaptive, etc.).  
Probe Tip Movement and Platform  
Some embodiments of the invention include devices and methods for providing accurate positioning of the tip...

11/5,K/7 (Item 3 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00158631

**INDUSTRIAL CONTROL SYSTEMS**

**SYSTEMES DE COMMANDE DE PROCESSUS INDUSTRIELS**

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Patent and Priority Information (Country, Number, Date):

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AT BE CH DE FR GB IT JP LU NL SE US

Main International Patent Class: G05B-013/02

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Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 9110

- English Abstract

An adaptive Hy industrial control system comprises a controller (21) controlling an industrial process (20) (ship, rolling mill, etc.), the state of which is measured (y). The controller and process outputs are fed to a parameter estimator (34) which estimates the operating polynomials (transfer functions or delay operator functions) A, B, and C of the process. A controller design unit (35) processes the output of estimator (34) to produce coefficients for the controller (21), which implements a polynomial ratio  $C_n/C_d$ . Unit (35) implements an on-line Hy algorithm based on minimizing a "square of sum" form of function  $(P_c \cdot u(t) + F_c \cdot e(t))^2$ , which results in equations which are easier to solve than those arising from the usual "sum of squares" form of function. A polynomial  $L = P_{cn} F_{cd} B - F_{cn} P_{cd} A$  is calculated at (72), the unstable zeros  $L$  calculated at (73), the matrix equations  $F A P_{cd} \lambda + L - G = P_{cn} C F^* z - n$ ;  $F B F_{cd} \lambda + L - H = F_{cn} C F^* z - n$  calculated at (74), the extreme eigenvalue extracted at (75), the corresponding eigenvector extracted at (76), and

Cn and Cd calculated as GFcd and HPcd at (77) for passing to the controller unit (21). Instead of this eigenvector/eigenvalue technique, a modification (the F-iteration technique) can be used, in which the equations  $FAPcd\lambda + L - G = PcnC$ ;  $FBFcd\lambda - L - H = FcnC$  are solved,  $F^*$ , the adjoint of  $F$ , is calculated, the polynomials on the right-hand side of these equations are multiplied by this adjoint, and the procedure is iterated. The parameters of  $F_c$  and  $P_c$  may be adjustable.

#### French Abstract

Un systeme adaptatif de commande de processus industriels de type Hy comprend une unite de commande (21) qui effectue la regulation d'un processus industriel (20) (navire, laminoir, etc.), dont l'etat doit etre mesure (y). Les signaux de sortie de l'unite de commande et du processus sont achemines dans un estimateur parametrique (34) qui estime les polynomes operationels (fonctions de transfert) ou fonctions operatrices de retard)  $A$ ,  $B$  et  $C$  du processus. Un organe (35) de conception de l'unite de commande traite les signaux de sortie de l'estimateur (34) afin de produire des coefficients pour l'unite de commande (21), qui etablit un rapport polynomial  $C_n/C_d$ . L'organe (35) utilise un algorithme de type Hy en ligne se fondant sur la reduction au minimum d'une forme "carree de somme" de la fonction  $(P_c(t) + F_c.e(t))^2$ , ce qui a pour resultat des equations qui sont plus faciles a resoudre que les equations provenant de la forme habituelle "somme de carres" de la fonction. Un polynome  $L = PcnFcdB - FcnPcdA$  est calcule en (72), les zeros instables  $L^-$  sont calcules en (73), les equations matricielles  $FAPcd\lambda + L - G = PcnCF^*z^{-n}$ ;  $FBFcd\lambda - L - H = FcnCF^*z^{-n}$  sont calculees en (74), la valeur propre extreme est extraite en (75), le vecteur propre correspondant est extrait en (76) et  $C_n$  et  $C_d$  sont calcules sous la forme GFcd et HPcd en (77) pour etre transmis a l'unite de commande (21). A la place de cette technique par vecteur propre/valeur propre, on peut utiliser une technique modifiee (de type F-iteration), dans laquelle les equations  $FAPcd\lambda + L - G = PcnC$ ;  $FBFcd\lambda - L - H = FcnC$  sont resolues,  $F^*$ , qui est l'adjoint de  $F$ , est calcule, les polynomes se trouvant du cote droit de ces equations sont multiplies par cet adjoint et la procedure est soumise a une iteration. On peut faire varier les parametres de  $F_c$  et  $P_c$ .

#### Fulltext Availability:

Detailed Description

#### Detailed Description

... detected in the general characteristics or behaviour of the system being controlled by continual parameter adjustment

One known controller design technique is known as  $H_\infty$  (  $H$  - infinity ) design. This has various advantages, but it has the drawback that the calculations involved in determining an  $H_\infty$  controller in any particular instance are in...p coefficients to an adder circuit 65. The outputs of the adders 62 and 65 are fed to a division circuit 66, which produces the **signal**  $u$  by **dividing** the output of adder 62 by the output of adder 66

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